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Attorney Docket No. IHG-001.01

IN THE CLAIMS:

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45. (Currently Amended) A method to allocate a network resource to a buyer agent operating on a buyer server, the method including:

receiving a data message from ~~the a~~ a first buyer agent, the data message associating a bid with the network resource,

transmitting to the first buyer agent information regarding at least one other bid for the network resource, the at least one other bid having been received from a second buyer agent,

determining an auction-termination time,

receiving from the first buyer agent before the auction-termination time in at least some circumstances a data message that has been sent by the first buyer agent in response to the transmitted information and associates a new bid with the network resource, and

based on the bid and an allocation rule, allocating the network resource among said buyer agents in accordance with the bids and an allocation rule to the buyer agent.

46. (Currently amended) The method of claim 45, where receiving the data message includes:

receiving a data message at a resource agent operating on a resource server.

47. (Previously presented) The method of claim 45, where the network resource includes at least one of: a bandwidth, a buffer space, and a processing time.

48. (Currently amended) The method of claim 45, where:

the first buyer agent is associated with a user, and,

the first buyer agent operates on a buyer server located remotely from a computer associated with the user.

49. (Currently amended) The method of claim 45, where:

the first buyer agent is associated with a user, and,

the data message is based on data provided by the user.

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50. (Previously presented) The method of claim 45, where the bid is based on at least one of:

a buyer allocation rule for determining an allocation of a network resource,
a buyer valuation rule for determining a value of the network resource, and
a buyer strategy rule for determining a bid for a network resource based on the buyer allocation rule and the buyer valuation rule.

51. (Previously presented) The method of claim 45, where the bid is based on a truthful best reply strategy.

52. (Previously presented) The method of claim 45, where the bid is based on a measurement of the network resource.

53. (Previously presented) The method of claim 50, where the allocation rule is identical to the buyer allocation rule.

54. (Previously presented) The method of claim 45, where the allocation rule includes one of: an English Auction allocation rule, a continuous bid-ask allocation rule, a progressive second price auction allocation rule, and a hold option allocation rule.

55. (Previously presented) The method of claim 45, where allocating includes: generating at least one command based on a resource control protocol for allocating the network resource.

56. (Previously presented) The method of claim 45, where allocating includes: generating at least one command based on one of SNMP and COPS for allocating the network resource.

57. (Previously presented) The method of claim 45, where allocating includes:

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generating at least one command for at least one device for controlling the network resource.

58. (Previously presented) The method of claim 45, further including:
receiving a data message from a seller agent operating on a seller server, the data message associating a network resource with an offer to sell.

59. (Currently amended) The method of claim 45, further including:
transmitting a data message to the first buyer agent including data based on at least one of:

- an available quantity of the network resource,
- an allocation of the network resource,
- a bid from the first buyer agent,
- a bid from a different buyer agent, and
- an offer to sell from a seller agent operating on a seller server.

60. (Currently amended) The method of claim 45, further including:
transmitting a data message to the first buyer agent notifying the first buyer agent that a bid received from the first buyer agent is less than a bid received from a different buyer agent.

61. (Currently amended) The method of claim 60, further including:
receiving a data message from the first buyer agent associating an updated bid with the network resource.

62. (Currently amended) The method of claim 45, further including:
receiving a data message from the first buyer agent associating an allocated network resource with a different buyer agent, and
based on the data message, reallocating the allocated network resource to the different buyer agent.

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63. (Currently amended) The method of claim 45, further including:
storing data based on at least one of:

- an available quantity of a network resource,
- an allocation of a network resource,
- a bid from [[a]] the first buyer agent, and
- an offer to sell from a seller agent operating on a seller server.

64. (Currently amended) A system to allocate a network resource from a resource agent operating on a resource server, the system including:

a buyer server, and

a first buyer agent operating on the buyer server, the first buyer agent capable of:

- i) generating a bid for the network resource,
- ii) transmitting a data message to the resource server, the data message associating a bid with the network resource,
- iii) receiving information regarding at least one other bid for the network resource, the at least one other bid having been received from a second buyer agent,
- iv) transmitting in some circumstances in response to the received information a data message that associates a new bid with the network resource, and
- v) receiving an allocation of the network resource from the resource agent.

65. (Currently amended) The system of claim 64, where the first buyer agent is capable of generating a bid for a network resource including at least one of a bandwidth, a buffer space, and a processing time.

66. (Currently amended) The system of claim 64, where the first buyer agent is capable of generating a bid for a network resource based on at least one of:

- data received from a user associated with the buyer agent,
- a buyer allocation rule for determining an allocation of the network resource,
- a buyer valuation rule for determining a value of the network resource, and

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a buyer strategy rule for determining a bid for the network resource based on the buyer allocation rule and the buyer valuation rule.

67. (New) The method of claim 45, where the new bid is further based on at least one of:
a buyer allocation rule for determining an allocation of a network resource,
a buyer valuation rule for determining a value of the network resource, and
a buyer strategy rule for determining a bid for a network resource in accordance with the buyer allocation rule and the buyer valuation rule.

68. (New) A method to allocate a network resource to at least one buyer agent operating on at least one buyer server, the method including:

receiving from the at least one buyer agent a corresponding data message, the corresponding data message associating a bid with the network resource, and

allocating the network resource among the at least one buyer agent in accordance with an allocation rule such that there is at least some combination of bids in respect of which the allocation rule divides the resource among more than one buyer agent.

69. (New) The method of claim 68, where the network resource includes at least one of: a bandwidth, a buffer space, and a processing time.

70. (New) The method of claim 68, where each corresponding bid is based on at least one of:

a buyer allocation rule for determining an allocation of a network resource,
a buyer valuation rule for determining a value of the network resource, and
a buyer strategy rule for determining a bid for a network resource in accordance with the buyer allocation rule and the buyer valuation rule.

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71. (New) The method of claim 68, where the allocation rule includes one of: an English Auction allocation rule, a continuous bid-ask allocation rule, a progressive second price auction allocation rule, and a hold option allocation rule.